DOCUMENT RESUME

ED 286 296 EC 200 473

AUTHOR Garvar-Pinhas, Adrienne; Schmelkin, Liora Pedhazur
TITLE Adminstrators' and Teachers' Attitudes Toward Mainstreaming.
PUB DATE Oct 86
NOTE 26p.; Paper presented at the Annual Meeting of the Northeastern Educational Research Association (Kerhonksen, NY, October 23-25, 1986).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Administrator Attitudes; *Disabilities; Elementary Education; *Mainstreaming; *Special Education Teachers; *Teacher Attitudes

ABSTRACT

Factors underlying attitudes toward mainstreaming were examined for 38 elementary school principals, 45 special education administrators, 84 regular elementary school teachers, and 80 special teachers. A mainstreaming questionnaire was devised around four factors: academic concerns, socio-emotional concerns, administrative concerns, and teacher concerns. Results of a discriminant analysis revealed overall differences in attitudes toward mainstreaming for the four groups. In particular, two factors, academic and administrative concerns, appeared to differentiate among the groups. Results reflected generally negative attitudes of regular teachers toward mainstreaming. Special education administrators and special teachers had the least positive attitudes in relation to administrative concerns about mainstreaming. (Forty-five references are listed.) (Author/CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED286296

Administrators' and Teachers' Attitudes toward Mainstreaming

Adrienne Garvar-Pinhas
Liora Pedhazur Schmelkin

Hofstra University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Adrienne Garvar-Pinhas

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the annual meeting of the Northeast Educational Research Association, October, 1986, Kerhonksen, New York

Administrators' and Teachers' Attitudes toward Mainstreaming

Recent litigation and legislation at the state and national level within the past ten to fifteen years have required that children with handicapping conditions receive a free education commensurate with their needs, and where appropriate, be educated with their nonhandicapped peers. Such goals necessitate that the majority of students presently labeled handicapped receive their education within the mainstream of the regular school program. While few would argue the philosophical and humanitarian goals underlying integration, there is considerable controversy as to the appropriate variables that contribute to successful mainstreaming experiences for those children who are handicapped.

One aspect of mainstreaming that has received considerable attention within the last few years has been teachers' attitudes toward children with disabilities and mainstreaming. Larrivee (1982) states: "While mainstreaming may be imposed by binding laws, the manner in which the classroom teacher responds to the needs of the special child may be a far more potent variable in ultimately determining the success of mainstreaming than any administrative or

curricular strategy" (p. 374). With the implementation of Public Law 94-142, there has been an increasing emphasis on the integration of children who are handicapped into the public schools. The success of this integration and the willingness of the regular teacher to participate in an educational program for those youngsters may be principally dependent upon the regular educators' attitudes toward this population (Abramson, 1980; Alexander & Strain, 1978; Baker & Gottlieb, 1980; Corman & Gottlieb, 1978; Hannah & Pliner, 1983; Harasymiw & Horne, 1976; Hirshoren & Burton, 1979; Horne, 1979, 1980, 1985; Hundert, 1982; Johnson & Cartwright, 1979; Koegh & Levitt, 1976; Kunzweiller, 1982; Linton & Kristen, 1980; MacMillan, Jones & Meyers, 1976; MacMillan, Meyers, & Yosida, 1978; Nader, 1984; Ryan, 1984; Salend, 1984; Salvia & Munson, 1986; Semel, Gottlieb, & Robinson, 1979).

Many studies of attitudes toward the exceptional child have been conducted in recent years. These are extremely important since attitudes educators have may be reflected in their behavior and strongly influence the academic, social, and emotional growth of children with handicaps. While there is little research that demonstrates the precise ways in which teacher attitudes toward these youngsters manifest

themselves in behavior toward these children, the research done by Good and Brophy (1972) and Brophy and Good (1972) on nonhandicapped children suggests that teachers tend to avoid public interactions with those students they preferred not to have in their classrooms. Using these findings as a basis, it is possible that the interaction between a teacher and a child who is handicapped would be similar, leading to such negative effects on the child as lowered self-concept and self-expectations as well as reduced academic achievement.

Most of the research investigating attitudes toward mainstreaming has focused on the attitudes of teachers. Much of this research has consisted primarily of acceptance-rejection issues, without much effort directed at uncovering the factors that may underlie particular attitudes. Recently, studies have begun to explore some of the underlying factors that may be related to attitudes (e.g., Graham, Hudson, Burdg, & Carpenter, 1980; Nader, 1984; Larrivee, 1981, 1982; Schmelkin, 1981; Winzer, 1984).

While the primary focus has been on teacher attitudes toward mainstreaming, there has been comparatively little written on administrators' attitudes toward mainstreaming and children with disabilities. The critical importance of

the building principal in the overall mainstreaming process for children who are handicapped has been widely cited in the literature (Alexander & Strain, 1978; Larrivee, 1979; Lazar, Stodden, & Sullivan, 1976; Payne & Murray, 1974; Smith, Flexner, & Sigelman, 1980; Vargoson, Smith, & Wyatt, 1974). Reehill, for example (1982) states:

> The degree to which the special needs of children with handicapping conditions are accomodated within the regular educational environment and successful alternative educational programming is provided will depend largely upon the attitudes of regular school administrators towards such educational programming as well as their knowledge of appropriate educational placements (p. 2).

The principal, by virtue of his or her leadership position, must be considered a key person in instituting a successful program for those children with disabilities. In light of the results of the attitude research using teachers as samples, it may be conjectured that administrators hold similar views toward youngsters who are handicapped.

Several studies have compared the attitudes of teachers and administrators toward mainstreaming (Barngrover, 1971; Bosman & Sloan, 1979; Gickling & Theobold, 1975; Guerin &

Zzatlacky, 1974; Mandell & Strain, 1978; Morris & McCauley, 1977; Overline, 1977). Differences in attitudes toward mainstreaming have been reported between professionals least involved with teaching (e.g., administrators and school psychologists) and those most involved (e.g., classroom teachers), with the former holding more positive attitudes (Barngrover, 1971; Guerin & Zzatlacky, 1974; Morris & McCauley, 1977). Studies comparing attitudes of special teachers, regular teachers, and principals generally conclude that principals have the most positive attitudes toward mainstreaming, followed by special teachers, with regular teachers having the most negative attitudes (Gickling & Theobold, 1975; Morris & McCauley, 1977).

What has emerged from the review of the literature is that there is a paucity of research on administrators' attitudes toward mainstreaming. Moreover, even when these issues have been addressed, they have been studied, for the most part, in relatively simplistic ways, generally relying on one or two global scales accessing pro or con issues. This approach overlooks the complexity of attitudes toward mainstreaming and precludes the possibility that attitudes may be more multidimensional in nature.

The present investigation addressed some of the

concerns raised above. The study sought to answer two questions:

(1) What are the factors or aspects of attitudes toward mainstreaming of principals, special education administrators, regular teachers, and special teachers?

(2) Do these four groups differ in their attitudes toward mainstreaming?

Method

Sample

The sample consisted of 248 educators (38 elementary school principals, 45 special education administrators, 84 regular elementary school teachers, and 80 special teachers) from public school districts in Nassau and Suffolk County, New York. The total sample consisted on 174 females and 73 males. As would be expected according to the administrative literature, there were more male than female administrators (52 males versus 31 females). As might also be expected, there was a greater number of female teachers than male teachers (143 females versus 21 males). The mean age in years of the participants was 42.83 (*SD*=8.89). The mean number of years of teaching experience was 14.14 (*SD*=8.18), with regular teachers having the most teaching experience.

The mean number of years of administrative experience was 12.03 (SD=12.11). Of the regular teachers, 83% said that their classes had included one or more students with a handicapping condition.

Instrument Development

A Mainstreaming Questionnaire was constructed by the present authors to measure attitudes toward mainstreaming of the four groups. Respondents were instructed to complete a questionnaire which was initially comprised of 50 questions. These statements were developed by reviewing the teacher and administrative literature in order to identify major issues and concerns regarding mainstreaming. These included the possible effects of mainstreaming on the academic, social, emotional or behavioral development of students who are handicapped. In addition, issues relating to the possible effects of mainstreaming on the "normal" child in the classroom, the teacher and teaching process as well as administrative concerns were explored. The item pool was developed by selecting the top 10 questions with the highest factor loadings from a questionnaire developed by Schmelkin (1979). Since the statements in that questionnaire pertained only to teachers, additional questions dealing with administrative concerns were also

included.

Statements were phrased in both positive and negative formats. Subjects were requested to respond to each of the randomly ordered items on a 7-point Likert type scale ranging from +3, indicating very strong agreement, to -3, indicating very strong disagreement. The general term "handicapped" was used instead of more specific terms in order to focus on the more general nature of disabilities. However, the instructions directed the respondents to think in terms of those disabilities most often found in the public school setting (i.e., learning disabilities, emotional disturbance, etc.).

In order to ascertain the number of factors underlying attitudes towards mainstreaming and in order to create subscales to measure these factors, the responses of the four groups were subjected to a principal axis factor analysis with squared multiple correlations as initial estimates of communality. Inspection of the eigenvalues from the initial (unreduced) matrix indicated that the four-factor solution, accounting for 76% of the common factor variance, was most appropriate.

Items loading at least .35 on one factor and less than .35 on the other factors were considered for factor

interpretation and for inclusion in a given subscale. In addition, logical consistency and minimal repetitiveness were used as criteria for item selection. As a result, four subscales were constructed. The four factors were interpreted as follows:

(1) Eighteen items were retained for the first factor. Items with high loadings on this factor dealt primarily with the possible detrimental effects of mainstreaming on the conduct of the regular classroom and on the academic progress of nonhandicapped youngsters and on children with handicaps. These included items dealing with the burdens of having a youngster who is handicapped in the regular classroom in terms of time and attention (e.g., "The extra attention students with handicaps require will be to the detriment of the other students"). In addition, items on this factor dealt with the possible hinderance to academic progress (e.g., "The responsibility of educating a child who is handicapped in regular classes has an adverse effect on nonhandicapped children's education"). Thus, this factor was called Academic Concerns.

(2) Nine items loaded on the second factor. Items such as "Special class placement has a negative effect on the social and emotional development of a student who is

handicapped" and "Children with handicaps placed in special classes hold more negative attitudes toward school when compared with those placed in regular classes" had high loadings on the second factor, which reflected negative aspects of segregating students who are handicapped, particularly focusing on their social and emotional development. Consequently, this factor was called Socio-Emotional Concerns.

(3) The third factor consisted of eight items. This factor clearly dealt with administrative concerns regarding mainstreaming such as "Principals believe that a youngster with a handicap cannot make appropriate academic progress when they are integrated into the regular classroom" and "In general, principals feel that a child who has a handicap cannot develop positive social relationships with nonhandicapped children." Thus, this factor was called Administrative Concerns.

(4) The fourth factor, consisting of six items with high loadings, reflected a different aspect of mainstreaming not included on the other factors. The items seemed to reflect teacher concerns with such issues pertaining to support, positive contact and experience with youngsters who are handicapped, and in-service training, such as "Regular

classroom teachers need additional training if they are to be successful in teaching youngsters who are handicapped" and "Positive contacts and experience with children who are handicapped will lead to increased positive attitudes towards these children." This factor was named Teacher Concerns.

Alpha reliability coefficients were calculated for each of the subscales and were .92, .79, .82, and .65, for academic, socio-emotional, administrative, and teacher concerns, respectively.

Results

Table 1 presents the means and standard deviations for the four groups on the four subscales. In order to ascertain if there were differences in attitudes toward mainstreaming for the four groups, a discriminant analysis was conducted. Results indicated that overall there were significant differences among the groups (Λ=.63303; F=9.9872; df=12, df=635.27; p<.05). With four groups and four variables, it was possible to obtain three orthogonal discriminant functions. In the present investigation, all three discriminant functions were significant at the .05 level. The first discriminant function accounted for 25% of

Table 1

Means and Standard Deviations for Subscales of the Mainstreaming Questionnaire

Group	Academic Concerns	Socio-Emotional Concerns	Admin. Concerns	Teacher Concerns
Principals	2.66 (.88)	4.00 (.88)	2.99 (.88)	6.02 (.62)
Special Education Administrators	2.70 (.86)	4.35 (.89)	3.93 (1.13)	6.29 (.62)
Regular Teachers	3.70 (1.12)	4.24 (1.03)	3.44 (.71)	6.03 (.71)
Special Teachers	2.89 (.83)	3.89 (.81)	3.74 (.97)	6.12 (.71)

Note. The Academic, Socio-Emotional, Administrative, and Teacher subscales consisted of 18, 9, 8, and 6 items, respectively. Means and standard deviations (in parentheses) are reported on a 7-point scale.

the variance, while the second function accounted for approximately 10% of the variance. The third discriminant function accounted for less than 4% of the variance and was thus deemed to be not meaningful. Therefore, only the first two functions are interpreted.

Both the standardized and structure coefficients for the first two functions are presented in Table 2. The structure coefficients, which are the correlations of the original variables with the discriminant function, more clearly indicate the importance of the variables. On the first function, two of the four variables have meaningful correlations (>.30). These are Academic Concerns and Administrative Concerns. However, Academic Concerns is the more important one with approximately 55% (squared structure coefficient) of its variance accounted for, while only about 9% of the variance in Administrative Concerns is accounted for by the discriminant function.

Focusing on the second function, three of the four variable had meaningful loadings. However, the Administrative Concerns subscale was the most important, with 77% of its variance accounted for by the discriminant function.

An examination of the means for the four groups on the

Table 2

Standardized Discriminant Function Coefficients and Structure Coefficients

	Standardized Coefficients	
	Function	
Variable	1	2
Academic Concerns	-1.10262	-.26457
Socio-Emotional Concerns	- .39463	-.43707
Administrative Concerns	.71679	-.77291
Teacher Concerns	- .04346	-.17863

	Structure Coefficients	
	Function	
Variable	1	2
Academic Concerns	-.74003	.41510
Socio-Emotional Concerns	-.14543	.36372
Administrative Concerns	.30529	.87824
Teacher Concerns	.17830	.27736

important variables is instructive. On Academic Concerns, regular teachers had the highest means, followed by the special teachers, with the means for the special education administrators and principals being virtually identical. Since the higher score indicated less positive attitudes toward mainstreaming, the means would reflect less positive attitudes toward mainstreaming for regular teachers, followed by special teachers, with special education administrators and principals believing that mainstreaming would have a less adverse effect on nonhandicapped and handicapped youngsters in terms of academic costs.

On the variable focusing on Administrative Concerns, the special education administrators had the highest mean, followed by the special teachers, regular teachers, and principals. Since the higher score indicates less positive attitudes, it would appear that special education administrators and special teachers would have less positive attitudes when dealing with administrative concerns involving support and understanding the needs of youngsters with disabilities. Principals and regular teachers would appear to have more positive attitudes when focusing on concerns of administrators regarding mainstreaming.

Discussion

The present investigation sought to examine the factors underlying attitudes towards mainstreaming of four groups of educators: elementary school principals, special education administrators, regular teachers, and special teachers. Four factors were found to account for attitudes toward mainstreaming. These were Academic Concerns, Socio-Emotional Concerns, Administrative Concerns, and Teacher Concerns.

Other studies have also attempted to examine and identify dimensions of attitudes. Larrivee and Cook (1979) and Larrivee (1982) identified five factors that may underlie attitudes toward mainstreaming: (a) general philosophy of mainstreaming, (b) classroom behavior of special needs children, (c) perceived ability to teach special needs children, (d) classroom management issues, and (e) academic development of the special needs child. In particular three separate factors (b,d, and e) in that study seem to be related to the subscale relating to Academic Concerns. In addition, the first dimension in the Larrivee and Cook study appears to be similar to the second factor of the Mainstreaming Questionnaire: Socio-Emotional Concerns. Schmelkin (1981) also found two dimensions; Academic Costs

of Mainstreaming and Socio-Emotional Costs of Segregation that appear to underlie attitudes toward mainstreaming. Nader (1984) found four factors that appeared to underlie attitudes toward mainstreaming: (a) effects of the exceptional child in the classroom; (b) teacher anxiety, (c) teachers' perception of the exceptional child, and (d) teachers' conditions for accepting the exceptional child. The dimension involving teachers' perception of the exceptional child appears to be somewhat related to the factor on the Mainstreaming Questionnaire involving Teacher Concerns, particularly focusing on teachers' perceptions of their ability to successfully integrate youngsters with disabilities in their classes, teachers' expectations of success, their attitudes and perceptions of support systems, and positive contacts and experience with youngsters with handicaps.

Significant differences were found among the groups in their attitudes toward mainstreaming. In particular, two aspects, Academic Concerns and Administrative Concerns, appear to differentiate among the groups. Meaningful differences exist among the groups on the Academic Concerns subscale, with regular teachers and special teachers exhibiting less positive attitudes toward mainstreaming.

Principals and special education administrators had the more positive attitudes toward mainstreaming, reflecting an attitude that mainstreaming will not have negative effects on academic achievement. While the research on attitudes toward mainstreaming has led to conflicting results, it appears that these results tend to reflect the mainly negative attitudes of regular teachers toward the mainstreaming of youngsters with disabilities (Bradfield, Brown, Kaplan, Rickert, & Stannard, 1973; Shotel, Iano, & McGettigan, 1972). In addition, previous studies have also found administrators, who are more distant from the mainstreaming process, to be more positive in their attitudes (Barngrover, 1971; Guerin & Zzatlacky, 1974).

On the Administrative subscale, special education administrators and special teachers had the least positive attitudes in relation to administrative concerns about mainstreaming. This would indicate that, in general, special educators do not believe that, despite research citing the positive attitudes of principals, support will be given by principals to youngsters with disabilities. Special education administrators frequently cope with complaints from principals citing the extra burden that youngsters with disabilities place upon them and the

inordinate amount of teacher time that must be devoted to them. Thus, in theory, principals appear to respond in a more socially appropriate manner than may actually be the case in reality. These conflicting perceptions need to be understood and examined in order to resolve the conflict inherent in the differences in attitudes.

This investigation is suggestive of future research endeavors. The exact relationship between expressed attitudes and actual behavior needs to be more fully investigated. While individuals may hold a particular negative attitude, they may respond in a more positive socially desirable manner. Thus, there appears to be a greater need to investigate this relationship, particularly as it relates to the behaviors of classroom teachers who are in direct contact with youngsters with disabilities.

Additionally, it should be remembered that the Mainstreaming Questionnaire utilized the general term "handicapped" instead of providing more specific disabilities. Considering the results of this study, as well as previous investigations citing the multidimensionality of attitudes, it may be that attitudes toward mainstreaming would differ depending on the specific disabilities being used as referents.

In sum, future research needs to explore the multidimensionality of attitudes more fully. Future research into the variables that affect teachers' and administrators' attitudes toward the exceptional child should be concerned not only with attitudes toward various exceptionalities, but also the effects of these attitudes on youngsters with disabilities. It is hoped that future studies will integrate the findings from all aspects of research on mainstreaming and attitudes. In this way, a solid research base can be developed upon which to draw by those who are concerned with the education of youngsters with disabilities.

References

Abramson, M. (1980). Implications of mainstreaming: a challenge for special education. In L. Mann and D. Sabatino (Eds.). The Fourth Review of Special Education (pp. 315-340). New York: Grune and Straton.

Alexander, C., & Strain, P.S. (1978). A review of educators' attitudes toward handicapped children and the concept of mainstreaming. Psychology in the Schools, 15, 390-396.

Baker, J., & Gottlieb, J. (1980). Attitudes of teachers toward mainstreaming retarded children. In J. Gottlieb (Ed.), Educating Mentally Retarded Persons in the Mainstream (pp. 3-24). Baltimore: University Park Press.

Barngrover, E. (1971). A study of educators' preferences in special education programs. Exceptional Children, 7, 754-755.

Brophy, J.E., & Good, T.L. (1972). Teachers' expectations: beyond the Pygamalion controversy. Phi Delta Kappan, 54, 376-378.

Bosman, R., & Sloan, C.A. (1979). The perceived concerns of elementary school principals and elementary school teachers toward mainstreaming. (Report No. 143). (ERIC Document Reproduction Service No. ED193 795).

Bradfield, R.H., Brown, J., Kaplan, P., Rickert, E., & Stannard, R. (1973). The special child in the regular classroom. Exceptional Children, 39, 384-390.

Corman, L., & Gottlieb, J. (1978). Mainstreaming mentally retarded children: a review of research. In N. Ellis (Ed.), International Review of Research in Mental Retardation, (pp 239-254).

Gickling E., & Theobold, J. (1975). Mainstreaming: affect or effect. Journal of Special Education, 9, 317-328.

Good, T., & Brophy, J. (1972). Behavioral expression of teacher attitudes. Journal of Educational Psychology, 63, 617-624.

Graham, S., Hudson, F., Burdg, N.B., & Carpenter, D. (1980). Educational personnel's perception of mainstreaming and resource room effectiveness. Psychology in the Schools, 17, 90-108.

Guerin, G.R., & Zzatlacky, K. (1974). Integration programs for the mildly retarded. Exceptional Children, 41, 173-179.

Hannah, M.E., & Pliner, S. (1983). Teacher attitudes toward handicapped children: a review and synthesis. School Psychology Review, 12, 12-25.

Harasymiw, S.J., & Horne, M.D. (1976). Teacher attitudes toward handicapped children and regular class integration. Journal of Special Education, 37, 98-102.

Hirshoren, A., & Burton, T. (1979). Willingness of regular teachers to participate in mainstreaming handicapped children. Journal of Research and Development in Education, 12, 93-100.

Horne, M. (1979). Attitudes and mainstreaming: a literature review for school psychologists. Psychology in the School, 16, 61-67.

Horne, M.D. (1980). How attitudes are measured: a review of investigations of professional, peer, and parent attitudes toward the handicapped. Princeton: Educational Testing Service.

Horne, M.D. (1985). Attitudes toward handicapped students: professional, peer, and parent reactions. Hillsdale: Lawrence Erlbaum Associates.

Hundert, J. (1982). Some considerations of planning the integration of handicapped children into the mainstream. Journal of Learning Disabilities, 15, 73-80.

Johnson, A.B., & Cartwright, C.A. (1979). The roles of information and experience in improving teachers' knowledge and attitudes about mainstreaming. Journal of Special Education, 13, 453-461.

Koegh, B.K., & Levitt, M.L. (1976). Special education in the mainstream: a confrontation or limitation? Focus on Exceptional Children, 8, 1-11.

Kunzweiler, C. (1982). Mainstreaming will fail unless there is a change in professional attitude and institutional structure. Education, 102, 284-288.

Larrivee, B. (1981). Effect of inservice training intensity on teachers' attitudes toward mainstreaming. Exceptional Children, 48, 34-39.

Larrivee, B. (1982). Factors underlying regular classroom teachers' attitude toward mainstreaming. Psychology in the Schools, 19, 374-379.

Larrivee, R., & Cook, L. (1979). Mainstreaming: a study of the variables affecting teacher attitude. Journal of Special Education, 13, 315-324.

Lazar, A.L., Stodden, R.L., & Sullivan, N.V. (1976). A comparison of attitudes held by male and female future school administrators toward instructional goals, personal adjustment, and the handicapped. Rehabilitation Literature, 37, 198-201.

Linton, T., & Kristen, J. (1980). Mainstreaming: time for reassessment. Educational Leadership. 37, 433-437.

MacMillan, D.L., Jones, R.L., & Meyers, C. E. (1976). Mainstreaming the mildly retarded: some questions, cautions, and guidelines. Mental Retardation, 14, 3-10.

MacMillan, D.L., Meyers, E., & Yoshida, R. (1978). Regular class teachers' perceptions of transition programs for EMR students and their impact on the students. Psychology in the Schools, 15, 99-103.

Mandell, C.J., & Strain, P.B. (1978). An analysis of factors related to the attitudes of regular classroom teachers toward mainstreaming mildly handicapped children. Contemporary Educational Psychology, 3, 162-164.

Morris, P.S., & McCauley, R.W. (1977). Placement of handicapped children by Canadian mainstream administrators and teachers; a Rucker-Gable survey. Paper presented at the Annual International Convention, The Council for Exceptional Children, Atlanta, Georgia, (ERIC Document Reproduction Service No. ED 139 139).

Nader, A. (1984). Teacher attitude toward the elementary exceptional child. International Journal of Rehabilitation Research, 7, 37-46.

Overline, H. (1977). Mainstreaming--making it happen. Sacramento:California State Department of Education. (ERIC Document Reproduction Service No. ED 149 514).

Payne, R., & Murray, C. (1974). Principals' attitudes toward the integration of the handicapped. Exceptional Children, 41, 123-125.

Reehill, J. (1982). Knowledge and attitudes of Bronx County, New York public school principals with regard to the placement of children in the least restrictive environment. Paper presented at the Annual International Convention of The Council for Exceptional Children, Houston, Texas. (ERIC Document Reproduction Service No. ED 219 903).

Ryan, D. (1984). Mainstreaming isn't just for students anymore. Journal of Learning Disabilities, 17, 167-169.

Salend, S. (1984). Factors contributing to the development of successful mainstreaming programs. Exceptional Children, 50, 409-416.

Salvia, J., & Munson, S. (1986). Attitudes of regular education teachers toward mainstreaming mildly handicapped students. In J. Meisel (Ed.), Mainstreaming Handicapped Children: Outcomes, Controversies, and New Directions (pp.111-128), Hillsdale: Lawrence Erlbaum Associates.

Schmelkin, L.P. (1979). Perceptions of disabilities and attitudes toward mainstreaming. (Doctoral Dissertation, New York University, 1979). Dissertation Abstracts International, 4011B, 5467.

Schmelkin, L.P. (1981). Teachers' and nonteachers' attitudes toward mainstreaming. Exceptional Children, 48, 42-47.

Semmel, M.I., Gottlieb, J., & Robinson, N.M. (1979). Mainstreaming: perspectives on educating handicapped children in school. In J. Berliner (Ed.), Review of Research in Education, 7, 223-279.

Shotel, J.R., Iano, R., & McGettigan, J.F. (1972). Teacher attitudes associated with the integration of handicapped children. Exceptional Children, 38, 677-683.

Smith, T.E.C., Flexner, R.W., & Sigelman, C.K. (1980). Attitudes of secondary principals toward the learning disabled, the mentally retarded, and work-study programs. Journal of Learning Disabilities , 13, 62-64.

Vargason, G.A., Smith, F.V., & Wyatt, K.E. (1974). Questions for administrators about special education. Theory into Practice, 14, 99-104.

Winzer, M. (1984). Mainstreaming the handicapped child: attitudes of teachers and nonteachers. Canadian Journal for Exceptional Children, 1, 23-26.